

Work Order ID 119133

May-09-14 12:32:40 PM

PRELIMINARY ISSUE

119133

Page 1

Item ID: D4973-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Upper Cutter Deflector

Start Date: 5/09/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 5/09/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: ML5Date: 1405-09

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D4973

A U/R

100

0.00

100

Waterjet

FLOW WATER JET

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg

Dwg Rev: 084Prog Rev: 084

2-Deburr if necessary

7075 3/8" x 8"

.375 x 8.000"

Scrap/Destroy

2

0

Jm 14-05-12

110

0.00

110

QC

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

Quality Control

as per Dwg

2

0

Jm 14-05-12

DAS
13
9-89

114

0.00

114

Mill Conv

Memo

0.00

Conventional Milling Machine

DRILL HOLES AS PER DWG

MILL STEP AND BOTTOM FACE

2

0

14-3-13

Work Order ID 119133

119133

Page 2

May-09-14 12:32:40 PM

Item ID: D4973-1 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Upper Cutter Deflector
 Start Date: 5/09/14 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 5/09/14 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stop
116	QC2- Inspect parts off machine FAI/FAIB	0.00				2	0		13 9-89 14-3-14
116	Memo	0.00							
QC									
Quality Control									
120	QC8- Inspect parts - second check	0.00				2			
120	Memo	0.00							
QC									
Quality Control									

RD 5458

POSITIVE RECALL
 EFFECTIVE 4/5/09 AUTH
 RELEASED _____ DATE _____

4/4/05 26

Work Order ID 119133

May-09-14 12:32:40 PM

119133

Page 3

Item ID: D4973-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Upper Cutter Deflector

Start Date: 5/09/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 5/09/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

121

0.00

121

0.00

Outsource4

Memo

ISSUE P/O: 24263

TO:ATG

ANODIZE AS PER DWG

PRIME AS PER DWG

C OF C IS REQUIRED

CX 14/05/20 ①

132

0.00

132

0.00

Packaging

Memo

Receive & Inspect for Damage & Mat'l Certs

Packaging

Pry/05/23 ②

May-09-14 12:32:40 PM

Page 4

Accept

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Reference:

Run Start *NR1*

Stop *NR2*

140 QC5- Inspect part completeness to step on W/O

Memo

QC

Quality Control

150 Identify as per dwg & Stock Location: _____

Memo

Packaging

Packaging

160 QC21- Final Inspection - Work Order Release

Memo

OC

Quality Control

Picklist Print

Page 1

May-09-14 12:32:43 PM

Work Order ID: 119133

119133

Parent Item: D4973-1

D4973-1

Parent Item Name: Upper Cutter Deflector

Start Date: 5/09/14

Required Date: 5/09/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 13-11-19 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M7075T6B0.375X8.000

Purchased

No

f

17.9293

(2)

M7075T6B0 375X8.000

Jm14-05-12

7075-T6 BAR 0.375" X 8.000"

6.000"

6.000"

Location

Loc Qty

Loc Code

MAT001

17.9293

123611

2

125428

2

m126390

3.7042

m128502

10.2251

128038

128038.

DART AEROSPACE LTD		Work Order: 119133
Description: Cutter Reflector, Upper		Part Number: D4973 - 1
Inspection Dwg: D4973 Rev: PB4		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

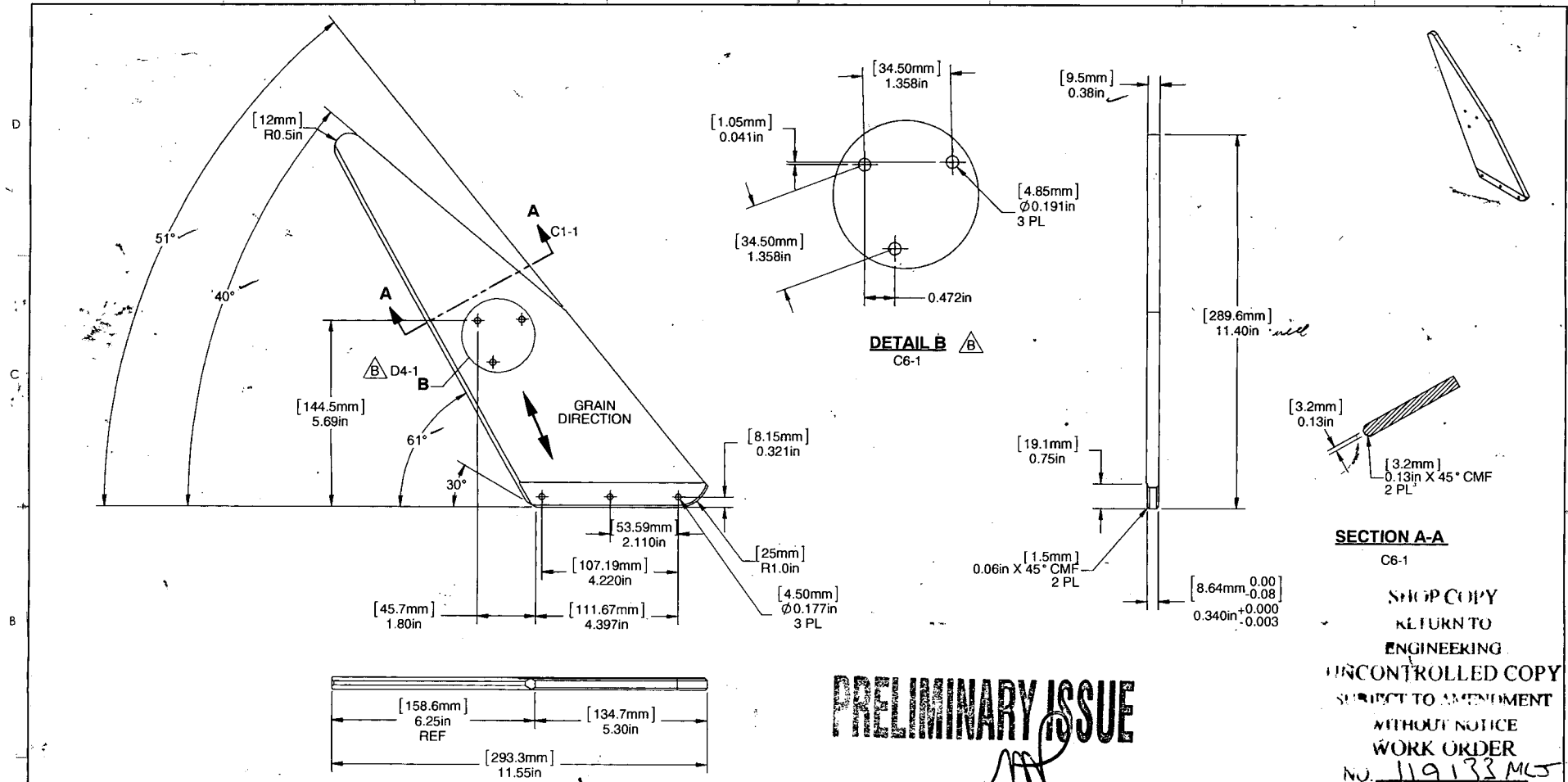
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
61°	±0.030°	61°	✓		AF	Jkm04
40°	±0.030°	40°	✓		AF	
51°	±0.030°	51°	✓		AF	
0.375 ^{±.0038}	±0.030"	0.390	✓		V	Jkm05
11.40"	±0.030"	11.40	✓			
5.67	±.030	5.67	✓			
1.80	±.030	1.80	✓			
4.397	±.010	4.397	✓			
4.220	±.010	4.220	✓			
2.110	±.010	2.110	✓			
0.177	+0.06/-0.01	0.177	✓			
R1.0	F.030	R1.0	✓			
.340	+0.00/-0.03	.339	✓			
.06x45°	±.030/±.5°	.06x45°	✓			
.75	±.030	.75	✓			
.13x45°	±.030/±.5°	.13x45°	✓			

Measured by: Jm	Audited by: 27	Preliminary Approval:
Date: 14-05-12 14:34	Date: 14/5/15	Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15

8 7 6 5 4 3 2 1



D4973-1 UPPER CUTTER DEFLECTOR

PRELIMINARY ISSUE

- NOTES:
- 1) MATERIAL: 7075-T6 (OR T651/T6510/T6511/T62) ALUMINUM BAR
PER AMS-QQ-A-225/9 (OR AMS 4122/4123/4186/4187) OR
PER AMS-QQ-A-200/11 (REF DART SPEC M7075T6B)
 - 2) FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK,
PRIME IAW MIL-P-23377J TYPE I CLASS N; 1-2 MIL MAX, AS PER QSI 005.
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4973-1", AGUSTA WESTLAND P/N "TBD", REVISION, BATCH NUMBER AND DATE OF MANUFACTURE,
USING AN X-TENSION STAMP, PER QSI 044 METHOD 6.2
 - 7) WEIGHT: 1.70 lbs (0.77 kgs)
 - 8) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: D4973-1-b.IGES

UNAPPROVED

B	ADDED HOLES TO D4973-1	AK	14.05.06
A	NEW ISSUE	DC	13.11.11
REV.	DESCRIPTION	BY	DATE
DESIGN	DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AK		
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	JLM	D4973	SHEET 1 OF 1
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	UPPER CUTTER DEFLECTOR	NTS
DATE	14.05.06	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR DISCLOSED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Receiving Report

Date:

14/01/24

Batch No:

14/28038

Supplier:

THYSSSEN

Dart P/O:

22364

Packing Slip:

Yes ☒ No ☐

Invoice:

Yes ☐ No ☒

Receipt:

Cash ☐ Cr ☒

Release Note Attached:

Yes ☒ No ☐

N/A

Waybill Attached:

Yes ☐ No ☒

N/A

Shipment Complete:

Yes ☒ No ☐

N/A

QC Inspection

1/11/24

N/A

Work Order

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12

Production/Admin:

Date

Received/Costing

Initial

Location

Purchase Order Receipt Listing

Page 1 of 1

Friday, January 24, 2014 8:01:13 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO22364 Receipt Dates from 1/24/2014 to 1/24/2014 All Line Item Types
All Item ID/GL/WOs All Rec. Employees All Currencies
Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv. Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
Vendor ID: PO22364	Vendor Name: 7	VC-COP001	Thyssenkrupp Materials CA Ltd								
CAD	No		M7075T6B0.375X6.0 F 00 7075-T6 BAR 0.375" F X 6.000" m128038		1/24/2014	1/24/2014	36.0000	\$15.28	0.0000	0	\$550.02
					36.0000	DESJ02		\$550.02	0.0000	0	
Total Received Quantity:											36.0000
Total Qty to Inspect (PO U/M):											0.0000
Total Reject Quantity:											0.0000
Total Receipt Value:											\$550.02
Total Balance Due Quantity:											0.0000

Jan-24-2014

SHIP FROM:
THYSSENKRUPP MATERIALS NA
2821 LANGSTAFF ROAD
CONCORD, ONTARIO L4K 5C6
Tel: 905 669 9444 Fax: 905-738-9033

1 AR DUK
Ship To: (1)
DART AEROSPACE
1270 ABERDEEN ST
HAWKESBURY, ON K6A 1K7
Tel: 613-632-9577 Fax: 613-632-1053

B I L L O F L A D I N G
No: PEC 859512
Ship Date 22Jan14 at 16:21 From PFW
Probill
Via VIM TRANSFER
FOB CONCORD
Frt PREPAID
Route 0- 0 Manifest
Vhcle Trailer
Slp STAN IVERS (905-532-1350)
Sold To: (20115)
DART AEROSPACE
1270 ABERDEEN ST
HAWKESBURY, ON K6A 1K7

B I L L O F L A D I N G
1) Our Order PEC-641941- 1 Your PO # 22425/22364
ALUMINUM PLATE 7075-T651

1.250" THICK X 7.0000" X 144.0000"
Heat Number R09669 Tag No 254507

Quantity 35.00 SFT PCS 5 Wt LBS 651

MTR

2) Our Order PEC-641941- 2 Your PO # 22425/22364
ALUMINUM PLATE 7075-T651
2.00" THICK X 7.0000" X 13.3750"
GRSAIN DIRECTION ALONG 13.375 DIM

Heat Number 491031 Tag No 254509

Quantity 15.60 SFT PCS 24 Wt LBS 472

MTR

3) Our Order PEC-641941- 3 Your PO # 22425 (22364)
ALUMINUM PLATE 7075-T651

.375" THICK X 6.0000" X 144.0000"
Heat Number R12373 Tag No 254511

Quantity 18.00 SFT PCS 3 Wt LBS 105

MTR

TOTAL: Tags 3 PCS 32 Wt LBS 1228

Heat Number
R12373

*** Chemical Analysis ***

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.

Page: 1Continued

Planche R 551 MB ✓

Planche R 503 MB ✓

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE
RAPPORTÉES IMMÉDIATEMENT

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMÉRO D'APPROBATION SEULEMENT
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

JESSE MACLEOD

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION
TOUTES LES MARCHANDISES DOIVENT ÊTRE RETOURNÉES À L'ÉMETTEUR
TPS/GST TVH/HST # 140223934 RT0001

14/01/24

DATE

SHIP FROM:
THYSSENKRUPP MATERIALS NA
2821 LANGSTAFF ROAD
CONCORD, ONTARIO L4K 5C6
Tel: 905 669 9444 Fax: 905-738-9033

Ship To: (1)
DART AEROSPACE

No: PEC 859512
Ship Date 22Jan14 at 16:21 From PFW
Probill
Via VIM TRANSFER
FOB CONCORD
Frt PREPAID
Route 0-0 Manifest
Vhcle Trailer
Slp STAN IVERS (905-532-1350)
Sold To: (20115)
DART AEROSPACE

=====

B I L L O F L A D I N G

ATTN: CHANTAL/LINDA
** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT **

TOTAL 1 SKID, 2 BDLS GW. 1305 LBS

*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA
CONCORD, ONT.* *** 9:00 AM TO 4:00 PM ***
**** TEL. 800-926-2600 ****

* WE STOCK STAINLESS STEEL *
* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT *

***PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE
ADDED TO EVERY ORDER.***

Page: 2 Last

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE
RAPPORTEES IMMEDIATEMENT
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY
RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

RECU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION
TOS/EST TV/HST # 140223934 RT0001

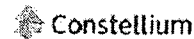
DATE

Constellium Valais SA

CH-3960 Sierre
Suisse

Aerospace and Transportation
Europe - AT Valais, Usines de Sierre et Steg

Tel : +41(0) 27 457 51 11
http://www.constellium.com



CONSTELLIUM ROLLED PRODUCTS
RAVENSWOOD, LLC

US -26164 RAVENSWOOD

INSPECTION CERTIFICATE	
According To	EN 10204-3.1
Disp. Advice / Cert	0080237066
Date	10/07/2013 Page 1
Your Order	5400179908 Copper
Project	
Dated	01/05/2013
Our Confirmation No.	143280-50
Customer No.	606281
Sales Contact	Fabienne Salamin ++41 (27) 457 6432
Certificate Dpt :	41 27 457 66 92

Aluminium plates in AA7075-T651, mill finish, Alumitex paper interleaved
To AMS 4045K/AMS QQ-A-250/12 August 1997, ASTM B209 and SIE0002

Your article : 012-000501

Lot	Production No.	Weight	Quantity	Dimensions
R12373	6241623	3483.25 Lbs	10	0.375" x 60.50" x 144.50"

Mechanical and technological properties

Sample	Temper	Ksi-UTS	Ksi-YS	A%2Inch	HB								
min-max	T651	>=78	>=67	>=9									
min-max													

Measured values

R12373-1	T651	85.3	75.1	14	176								
R12373-2	T651	84.7	74.8	13	175								

Chemical composition

Required composition (% by weight)

Casting No	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti		
Min			1.2		2.1	.18		5.1			
Max	.40	.50	2.0	.30	2.9	.28	.05	6.1	.20		

Analysis results (% by weight)

Other elements: Each <= 0.05% Total <= 0.15%

31374812	0.06	0.17	1.47	.028	2.44	0.19	.0037	5.63	.022		
----------	------	------	------	------	------	------	-------	------	------	--	--

Remark

This certificate of conformance verifies that the organization took effective control of quality to meet the specified requirements on both the sales order(s) and the customer purchase order(s)

*** COUNTRY OF ORIGIN AND MANUFACTURE : SWITZERLAND ***

Compliant to the European Union Directive 2011/65/EU also known as RoHS

Alain Thurre

Inspection Department

Valid without signature 03

Système de Management certifié

ISO 9001 / ISO 14001 / OHSAS 18001

Signature of the customer or its agent

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075T6B0.375x6.000 /
 RECEIVED BY: DESJOZ
 DATE: 14-01-24
 P/O# 128038 PO 22364 MATERIAL CERT RECEIVED YES
 QUANTITY ORDERED: 36 FT. QUANTITY RECEIVED: 36 FT.
 THICKNESS ORDERED: 0.375 x 6.000 THICKNESS RECEIVED: 0.375 x 6.000
 SHEET SIZE: 12 feet long SHEET SIZE RECEIVED: 12 FT LONG.

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/>	
INCORRECT FINISH	Y	<input checked="" type="checkbox"/>	
CORROSION	Y	<input checked="" type="checkbox"/>	
INCORRECT GRAIN DIRECTION	Y	<input checked="" type="checkbox"/>	
INCORRECT MATERIAL	Y	<input checked="" type="checkbox"/>	
INCORRECT THICKNESS	Y	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/>	
CORRECT MATERIAL	<input checked="" type="checkbox"/>	N	AMS QQ-A-250/12
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	N	R12373
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	N	M7075T6B0.375 x 6.000
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	N	m128038
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	
		7075T6B			8 14/01/24
		6.0 x 6.75 x 375			
		600 HRB			

testers located in the Quality Office

QC18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>Jm</u>	BY: <u>N/A</u>
DATE: <u>14-01-24</u>	DATE: <u>N/A</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 63057

Date: 23-May-14

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To


DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description	Rev:	
1 lot	Part: ASST 2 PCS D4970-3 (24.00) 1 PC D4970-1 (15.00) HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 2 PCS D4977-1 (8.55) 2 PCS D4977-2 (8.55) 1 PC D4974-1 (10.8) 2 PCS D4973-1 (12.05) 8 PCS D4980-1 (6.25) 10 PCS 646.3210 (14.35) 5 PCS 646.3010 (10.25) 2 PCS D4970-5 (6.75) HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PRICE IS PER PIECE Job: 20140313	PO: 24263 Line:	
Certificate of Conformance			
A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.			
ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY			
DATE: <u>23/5/14</u>			
CERTIFIED SIGNATURE: <u></u>			
RECEIVER SIGNATURE: _____			